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DR. E. S. HULL,
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FRANCIS GUIWITS.

COLMAN'S RURAL WORLD,

Is devoted to the promotion of the
AGRICULTURAL, HORTICULTURAL AND STOCK
INTERESTS OF THE VALLEY OF THE MISSISSIPPI.

It is issued on the 1st and 15th of every month, in
quarto form, each number containing 16 pages, mak-
ing a volume of 384 pages yearly. TERMS—\$2.00 per
annum in advance; Four copies, \$6; Ten copies \$15,
and a Premium of Five Concord Grape Vines to any
one sending the names of Four subscribers and \$6;
and Fifteen Concord Grape Vines to any one sending
the names of Ten Subscribers and \$15.

ADVERTISING TERMS.

A few appropriate advertisements will be inserted
in the "Rural World and Valley Farmer," at the
following rates: One square (being ten lines of this
type or an inch in depth), each insertion \$2; One
column, one insertion, \$15; and \$10 for every addi-
tional insertion. One-half column, one insertion, \$8;
two insertions, \$15, and \$6 for every additional in-
sertion. These rates will be strictly adhered to.

WHEAT CULTURE.

While Indian corn, to the American farmer,
is the most valuable of all the cereals, wheat is
the most preferred, and will ever be used as
the chief bread material of the more refined
and intelligent of the human race. Wheat is
adapted to a wider range of latitude, and to a
more diversified climate than other grains,
while, at the same time, it is subject to more
casualties from insect enemies and blights than
any other farm crop. It will only grow suc-
cessfully upon a soil well stored with all the
elements adapted to this crop; and to secure a
remunerative return, requires a more thorough
preparation of the soil than it generally re-
ceives.

Until the opening of railroads, which have
secured to the farmers of the interior a foreign
demand for their surplus wheat, this crop was
cultivated in the most imperfect manner, sown
generally among the standing corn, with the
view to secure only sufficient for home consump-
tion. While the foreign demand has caused
an immense advance in the price of wheat, the
improvement in the mode of culture has not
been in a corresponding ratio.

In the climates of Great Britain and in the
Northern and Eastern States of America, a
greater variety of crops are grown, including
clover and other fertilizing plants, than are
found adapted to the climate of our Western
States, and, hence, in those countries, follow-
ing the land to be sown with wheat is most
common. Where this is practiced, a more
thorough preparation of the soil can be given,
as the farmer turns under his clover, or other
green crops, so early in the season as to allow
it ample time to become rotten; and, with sub-
sequent working of the soil, a most thorough
preparation is secured, and full crops obtain-
ed, often reaching to forty and even sixty bush-
els of wheat per acre. Under this system of
culture, with the more diversified crops, a ro-
tation from four to seven years is adopted,
which, if judiciously managed, secures a grad-
ual and permanent improvement in the condi-
tion of the soil.

Our Western farmers are limited to a small-
er number of crops: chiefly to clover, corn,
wheat and oats. In sections where hay finds
a ready market, Timothy is added, but too of-
ten to the exclusion of clover. Where hemp
and tobacco are staple crops, a different system
has been employed. Some of the largest wheat
crops that have been grown in the West, have
been upon new land, immediately following to-
bacco; but heretofore many cultivators of to-
bacco have confined themselves so exclusively
to this crop and Indian corn, that their lands
have been speedily worn-out, as has been the
case in Maryland and Virginia. With the
present prices of wheat, this crop, with others,
should alternate with tobacco for the benefit of
the soil. It may be well to remark that the
only reason why heavy crops of wheat fre-
quently follow a crop of tobacco is, that the
thorough culture necessary to secure a good
crop of tobacco affords the best preparation of
the soil for wheat, and is one of the most for-
cible arguments in favor of greater care in
preparing the soil for wheat in the ordinary
course of Western rotation.

Probably the most profitable system of rota-
tion consistent with the permanent improve-
ment of the land, where wheat is the leading

staple, is to follow clover the second year with
wheat, plowing under the clover in August in
time to allow the plants to undergo a partial
decomposition before the proper time for sow-
ing wheat. But the objection to this course is
that one season is considered lost. Although
lost to a market crop, the improvement secured
to the land, we think, will more than remun-
erate for this.

The most common method practiced by our
Western farmers, is to sow wheat after corn.
This system is not free from objection, because
the corn seldom matures sufficiently early to
admit of time to put the ground in the proper
order for wheat. Sowing wheat among the
standing corn, and scratching the seed under
between the rows with a one-horse plow or a
cultivator, is not so much practiced as former-
ly, when wheat was of less value; and the
labor of cutting up the corn and removing it
from the field, at this busy season of the year,
is too great to be generally practiced to the ex-
tent that corn and wheat are grown; and hence
the only practicable method where wheat fol-
lows corn, is to cut up the corn and put it in-
to neat shocks, as few in number as can be
conveniently made, and to plow and harrow
the ground as well as can be done under these
incumbrances. But, owing to the objections at-
tending this method, some of the best farmers
we have among us, when they do not follow
clover with wheat, adopt the following rotation,
viz.: Beginning with Indian corn, followed the
next spring with oats, and generally clover
combined, then with wheat, to be again follow-
ed with corn. Perhaps this course is the best
that can be adopted, where only these three
crops, including clover, are embraced. But to
reap the full benefit, the clover should be al-
lowed to stand over one year before the wheat
is sown.

The most important consideration in the
culture of wheat, is to adopt the course that
will bring the crop to maturity at the earliest
possible period, as the surest means of escape
from the most common calamity—rust; and in
those sections reached by that formidable en-
emy, also, the midge. An advance in the ma-
turity of this crop of only five days, has fre-

quently been the means of escaping destruction from one or other of these enemies. In order to secure this advance in the period of maturity, several matters are to be taken into consideration: First, the best possible preparation of the soil; and, as the basis of this, thorough drainage is necessary. Where this is not the result of natural means, art should be employed to attain this end. Next to this, much depends on the variety of seed sown. From the great number of kinds of wheat now grown in the United States, some are better adapted to certain localities than others. We cannot, therefore name any particular variety best adapted for general cultivation; but every farmer can select the best known to him in his own neighborhood. Many farmers sustain a considerable loss in consequence of not paying proper attention to cleaning their seed wheat from chaff and other foul seed. If this is properly attended to, there will be a less number of farmers to advocate the idea that wheat will turn to chaff. Not only should the chaff and all foul seed be blown out, but the light and shriveled grains of wheat also, leaving only the plump, well matured seed.

In addition to the means we have alluded to, in order to secure early maturity, the application of from three to four hundred pounds of salt to the acre, at the time of sowing the seed, has been found to hasten the time of ripening several days. Besides this advantage gained by the application of salt, it is found of great importance as a manure on certain soils—and we believe it will prove beneficial on almost all soils, not in the immediate neighborhood of the ocean—nor will its influence be lost in a single season.

In some sections of the country, where land is naturally thin, or has become poor by excessive cropping, yard or stable manure that is well decomposed, has been applied with advantage. Wheat can only be grown to profit on a rich soil; but upon our Western lands we should prefer the application of manure to hoed crops such as corn or potatoes, to be afterwards sown to wheat, rather than directly to the wheat, lest a too rank growth of straw, at the expense of the grain, be the result.

But few of our farmers have learned the importance of husbanding their means of making manure. They should at least estimate the value of their straw piles, which, when burned, or otherwise allowed to go to waste, is the loss of so much of the life-blood of the soil, the need of which will one day be seriously felt.—They should be scattered upon the thin places, or lightly strewn over the wheat fields in the fall, if not manufactured in a more systematic manner into manure.

ED. RURAL WORLD: We will hold our fair this fall in this place (Mexico, Mo.), commencing Tuesday, Oct. 9th, and continuing four days. We offer about \$3,500 in premiums, and expect a large attendance. We would be glad to see you here and hope you will make it convenient to attend.

Officers as follows: N. Lackland, Pres. A. R. Ringo, Vice-Pres. John P. Clark, Treas. W. D. H. Hunter, Sec. L.

HELPING THE SOIL.

The good farmer does this. Nature does not always make a perfect soil—indeed but seldom. Then the farmer's aid comes in excellently. He is supposed to be a man of understanding; if not, he had better be employed in something that he has capacity for. The means to help a soil are not scant. What ground generally lacks, is, manure. Manure is the best one ingredient that can be applied, as it contains the principles of many others. It moistens soil; it mellows it; it drains it; it guards it against frost and sun. It is for this reason that so much manure is used, and, comparatively, little else. People will do without a sub-soil plow, without ditching, without a mowing machine, without even a horse rake; but they will use manure, more or less. It is well for the land that this is so. Nature has made some soils too wet for farming purposes—though to meet her end they were properly made. The farmer need not be told, that, to help this soil, he must drain it. He then gets the undeveloped richness. Pulverizing it and stirring it deeply, so that the heat and air can get down, is another great thing. These are the main things—simple, yet how little done.

Nature gives you the soil; you help her, and she helps you in return—helps you while you are doing it. She keeps your ground moist when you mellow it; and she lets the air pass into it with its fertility which she took from negligent barn-yards—and this fertility she leaves with the soil—so that the farmer and nature are helping each other. Thus our farms are improved. How are they deteriorated? By just the opposite course—by neglect. The more we do for our farms, the more nature will aid us; and thus the better will be our land. The truth is, we are only helping nature at the best, and she pays us for what we do for her: the land is still hers: she forever holds the title deed.

ORDER IN FARMING.

Much is said about order in farming, and it is of the highest importance that we observe it. For instance, to let your crops get ripe at about the same time, is an injury. It crowds your work: it over-ripens your grain, and you have loss in consequence; it spoils your hay by getting it too ripe; it brings you out of season with your grain, and with your business generally—and much perplexity and great loss in many ways, is the result. But the loss is not so readily perceived as so much money out of the pocket would be: it is therefore not so much regarded. Shall we continue this bad state of things? We repeat. How many hay crops have been lost by crowding them into the ripe condition; how many grain crops do we see yearly over-ripe and measurably destroyed. These are common occurrences. Hundreds of dollars are lost in this way on every farm yearly. A little arrangement, and no extra expense would remedy all this. Is there not a most flagrant wrong here? Is it not all unnecessary? We are not careless merely—we are lazy. Let us mend this matter, and benefit ourselves and the country.

SEEDING TIMOTHY MEADOWS.

In sowing Timothy seed in the spring with oats or other small grain, according to the usual practice in the West, a good "stand" is attended with much uncertainty. Our springs, just at the period when the young grass stands most in need of a moist earth, are frequently hot and dry and extremely liable to burn out the young Timothy plants before they can become sufficiently rooted to contend against the overpowering force of the grain crop.—Some springs are exceptions to this state of things; but most generally the crop of grass is entirely starved out and overshadowed by the grain, or so much injured that the ground is but half set with grass, leaving it liable to be choked with weeds, at the expense of the little that has escaped the drying, burning influence of the previous weather.

We have frequently taken occasion to set forth the advantages of sowing Timothy in the fall, unattended with any other crop. With a favorable fall, and the work of preparing the ground in a proper and thorough manner, there is a much greater certainty of securing a stand; and when sown at this time, too, the grass will most generally so completely occupy the ground that it will more thoroughly exclude the weeds, and "white top" to which our fields are so liable. Seed sown in the fall will most generally yield at least two-thirds of a full crop of hay the succeeding summer; whereas, if sown in the spring, nothing is made until the following spring, even under the most favorable circumstances. Timothy has a small seed, and the young plant is extremely frail and delicate, and requires the most thorough preparation of the soil, which can only be secured by repeated plowing, rolling and harrowing. If the ground receives a sufficient wetting, the seed should be sown early in September, in order that the young plants may become well rooted before freezing weather sets in. The cool weather of the fall season is much better suited to the nature of this species of grass, than the scorching weather of spring and summer. The grass, when established, chiefly perfects its entire growth during the spring, and before the heat of summer overtakes it.

The hay crop in the West is a very important one, and the meridian of the Ohio Valley, where so much has been grown for the markets of the Southern cities, lies almost upon the extreme southern verge of the line capable of growing it, and hence the greater care is required in preparing the land, and in securing a suitable time for sowing the seed. In the South and West, we labor under an additional disadvantage in seeding meadows. Timothy and clover are about the only crops that can be grown from which hay is made, but in the cooler and moister climate of the North, a variety of grasses, mixed, may be sown together, which greatly increase the chances of success.

In order to produce a good crop of Timothy, land must also be rich as well as thoroughly prepared. If it is not rich, it should be made so by the application of a liberal dressing of manure. This alone will sometimes secure a good set of grass: whereas, if the seed is sown

upon a worn and exhausted soil, it might prove a failure.

Next to well prepared land, a good supply of new seed should be sown. It is poor economy to sow a scanty supply of seed. One bushel to six acres is as little as should ever be sown. In addition to this some prefer to add a pint of clover seed to each acre sown.

Farming Favorable to Permanent Enjoyment.

Ah, that people knew! they would see that their eagerness after happiness is in the wrong direction. We are trying to get too much of what nature will not permit us to have—great felicity. It is incompatible with the laws of our nature. We are trying to get exceedingly happy; we are straining after high flights—when these flights can never be sustained. Happiness, or a high state of emotional felicity, is a stimulus—we are stimulated when we are happy. The reaction therefore must necessarily take place, and reduce us as far as we had ascended. This can never be avoided. It is as immutable as the laws of nature: it is a law of nature. Can we then be constantly in this state of excitement—first exhilaration, then depression? Whether we are so or not, we are constantly aiming at it. This is the rage of mankind—the constant tendency. Those who have most of the excitement—who are most intoxicated (and therefore depressed), are the soonest worn out.

What then is the cure? It is difficult to find a cure—not to find, but to practice. Will the drunkard reform?—with difficulty! The cure is, temperance. If we wish to be happy, we must change our course, and take up with moderate pleasures—moderate, because they are lasting, and not hurtful: not only not hurtful, but healthful, beneficial. The moderately inclined live longest, and they live a quiet, happy life. Have our readers ever thought that quiet joys are the most delightful, the purest, the sweetest? They are like the cool water in the deepest wells—like the faint, but sweet fragrance of the mignonnette. This is refinement. The coarse pleasures are the boisterous.

A farmer's life disposes to this quiet happiness. There is no great excitement—but a quiet pleasure in the enjoyment of the things about him. Here are the trees with their rapid growth and rich foliage; the grass, how it puts forth in abundance; and the grain—his grain—so rich and promising. The showers have a particular significance to him. They add to his store, as well as to the delight of his senses. Here is no rapture—or but moderate and occasional. A real pleasure the man of the country takes in the things that are growing around him. Even the mould is a delight. It is fragrant; it is mellow; it is rich; it is the support of the world; it is his, the farmer's while he lives; when he leaves it, it goes to his children to enjoy as he—while Nature all the while holds the title deed. If the farmer has the care of labor, he has also its benefits—not only in the increase of his lands, his bodily comforts, but his health. A law has made it

that we must exercise if we would enjoy health—not hard labor, but agreeable, so that a savor goes with it, which mollifies the severity.

The farmer has his stimulating times—in seed-time and in harvest. The mellow, rich soil has its effect upon him; but much more the harvest for which the seed time was instituted. These are periods of labor coupled with excitement, moderate, but sufficient to carry him through agreeably. There is no pleasure on earth so substantial and so pure as that which the harvest affords—in the mellow autumn when the earth teems with fatness. A loaded tree is more beautiful than a tree in blossom; both are the farmer's. Then comes the winter, after the late fall has contributed its various scenes of interest, with its Indian Summer to soften all the harshness. In winter, the farmer is at rest agreeably.

Plowing Under Mellow Soil.

This is not usually practiced, but it is of greater advantage than it seems at first sight. It is known that roots need mellow soil—the mellow and deeper, the better generally. The best carrot crop we ever knew, was on soil plowed under, which was in the mellowest possible condition, reaching down some ten or twelve inches. Sub-soiling is of this nature somewhat. But, mostly, a deep loose soil, gives a chance for the roots to work where the roots are large—for a large amount of ground is displaced by a beet or turnip crop: if estimated, it would seem surprising. But a deeply mellow soil has other important advantages. It gives a chance for the ground to breathe—to take in to a great depth, where the roots are at work, warmth and moisture from the atmosphere—and if the frost (as was the case last winter) has penetrated deeply—moisture from below. It seems a pity to turn under mellow soil—of course, it is all in the seeming. If it is mellow under, it will be mellow at top. If manure be mixed with it, all the better, as manure has a mellowing influence on soil—and on that account, for one thing, has such an effect; it is not merely the fertilizing principle that makes manure so valuable—it has a mechanical effect as well.

A fallow turns down mellow soil. Without manure, we see what benefit this mellowing of the soil has—plowing under the finely comminuted surface. This makes a bed fit as it should be. Thus a garden—thus any ground treated. Old meadow will do well with a top-dressing of some stimulant fertilizer, as guano or superphosphate—but never so well as when mellow soil is added, as is the case when strewed with compost. This adds mellow soil for the roots to transfer themselves to—and we see the effect—not as in the case of the phosphates—but for years. If working the soil is manure, then turning under mellow ground is manure also. The thing is not a theory. Like all improvements, its progress is slow.

MILKING.—One steady hand that will do it quick and easy, should always milk. It should be done at regular hours and in a clean manner.

SHADE FOR SHEEP.

Shade is cooling, and therefore good for sheep. But this is not all: the flies will not trouble sheep when in a dark place, so that a sheep, well-sheltered, will be exempt from heat and annoyance—two things that are of the greatest importance.

In our younger days we used to have a place for our sheep to run in—a bay, covered with hay, and well boarded, so that there was but one place for the light, and that the entrance, only sufficiently large for sheep to pass through. It was intended for winter quarters only; but we found the sheep would frequent it as much in the summer, and most in the greatest heat. They found rest and comfort there. They were also secure against the cold rains, which early in the spring, and in the autumn, are so hurtful to stock. The building needs not be high, and not expensive—and it can be made to be moved from place to place.

Treat Much With the Same Care as You Would a Little.

One thing we are faulty in. When we engage in a thing largely, as in raising stock, or farming, we do not take the pains which we do on a small scale. Now, in keeping ten sheep there is no difficulty: they can be well taken care of. Thus a single cow or two can be readily made to thrive. In a large herd we never see the same success—or so very rarely that it is the exception to the rule. And yet this has no more need to be so, than in the case of ten sheep or a single cow, or where but a few acres of ground are cultivated. Equal pains should be taken with all portions of the farm. Hence more care should be bestowed than we find generally. The profit will be according to the care. The labor will pay, and pay interest on itself. Why not in a large flock, divided, as in a small one? To huddle together cattle or sheep, is injurious; to have more lambs come than you have the means of taking care of—seeing to them, aiding them in nursing, &c., is a loss. You cannot do for your lambs what you are capable with a few. Make it a business to see to each sheep, whether you have two or a thousand—then you will have the success of a single sheep in each member of your flock. Herding is hurtful—separate therefore, so as to make the flock individual small.

Does not the best evidence teach you, that one acre carefully treated, is worth two ordinarily managed. Our large farms are run over; our small spots are carefully cultivated, because we have the time and the help; we apply the manure on it, and till it thoroughly—so thoroughly as seems to many to be time thrown away. But did these many ever estimate this time? On the other hand, they find that from such small beginnings often rise our most successful and most highly respectable farmers. Why respectable? They give the proper treatment to their farms—to their business. It is a common truth, that, in America, we undertake too much—especially so now when help is scarce. Take time—give full attention to all; and the aggregate will be individual success.

EXAMPLE IN FARMING.

Why is it that some farms are so much better than others? great crops are raised—and yet the quality, the original quality of the soil is the same. Men owning these farms will sometimes add field to field or farm to farm—and at once, almost those fields or farms are brought up to high productiveness. We know such men; they are found in every community where farming has been carried on for some time.

The secret is, these men apply the better principles of farming, which their neighbors and the world of poor farmers scout; they do not believe in scientific farming; these "new-fangled notions," as they term it, don't amount to anything, in their opinion. And yet these new-fangled farmers, these scientific farmers, these book farmers—are succeeding every year, while their fault-finders are remaining stationary.

Is there not something wrong here? and is that wrong not in the farmers who are finding the fault, and doing the poor farming? This cannot be gainsayed. Here is prejudice as well as ignorance. Can we not lay aside this prejudice, and pattern after the good farmers? It is the way we have to do, if we wish to succeed as they do? These good farmers are generally good men, excellent citizens; and they will be glad to impart knowledge to their neighbors. Get this knowledge, then. Why live as you do, when you can as well have it as not? Pattern after such neighbors, and you will soon be as successful as they. The country has got to come to this; it is coming to it.—Why then be so tardy, and not get the benefit at once, or at least a beginning of it? There is but little more work to do—there is some, it is true. But are you not willing to do more, if you can succeed as your neighbor does? If not, you are lazy, shiftless. In such case, you had better dispense with farming—for farming requires hard work—and some other vocation will be more easy to you—perhaps cause you to escape from the odium of being called lazy—as every man is criticised and called what he is, as you yourself well know, yourself being one of those who talk about these things. It is then a great error not to pattern after our best men. We lose by it in reputation and pocket.

Keep the Ground Stirred.

The farmer should remember that he cannot be too busy with his cultivator and hoe. Stirring the ground makes it not only moist, but enriches it. It makes it moist by capillary attraction, drawing the moisture up from below where the great fountain of moisture is, and absorbing it from the atmosphere, which it condenses as it enters the mellow soil. It enriches it by the latter process; the air finding access, yields its ammonia, and probably other fertilizing matter. If the soil is not mellow, the air cannot enter. Another thing: the more the ground is stirred, the more fresh soil is thrown up and exposed to the air. This has a direct effect.

All this is experience, and established. Keep the plow going; keep the cultivator going; use the hoe and the harrow. But never plow your

soil wet—never work it wet. Keep your hoe bright always when you work, unless it is the dew that dampens it.

The Best Breed For Oxen.

This is a question we are requested to answer. From our own observation and the opinion of many practical farmers, we unhesitatingly say, the Devon; and any one who has witnessed, at some of the Eastern fairs, the exhibition of more than one hundred yokes in a single team, as we have, and observed their quick, elastic step, their readiness to obey, not simply the command of their driver, but even the motion of the goad, will concur in this opinion. There are other breeds of cattle that make most excellent working oxen. Some pronounce the Durham inferior to no other. Undoubtedly the short-horned ox may be trained to almost anything that others can be, and but for their aptitude to take on flesh, they would make most sprightly, strong working animals. An old and experienced farmer of Kentucky, and one of the best breeders of short horns and other stock, says:

"I always employ oxen on my farm, and have worked those of every breed we have among us. The Herefords are excellent workers, and pull evenly. But they are harder to break in, and are apt to be more vicious than the short-horns. I prefer the short-horns for oxen for the following reasons: They are gentle and docile, easily broken in and managed, strong and true in pulling, and not vicious among other stock, and when they have worked five or six years, are easily fatted for the butcher, who will pay a good price for them."

Short-horns still bring such prices for breeders that few owners are willing to assign them to the yoke, unless they are in some way defective for breeders, and these, of course, cannot make the best oxen. In view of the great tendency of the short-horn to fatten, a very decided improvement for working animals would be a cross of the short-horn upon some of our native stock. Yet we hardly rate these equal to the half Devon. The Devon, too, whether full or half-blood, maintains a more uniform, substantial and beautiful red color, which, in itself, seems to indicate hardiness and activity, as well as beauty.

The Hereford makes a good working animal, but not, we think, equal, in all respects, to the Devon, or half-blood short-horns. Working cattle, however, in the West, bear no comparison to those in use in the Northern and Eastern States, simply because in no other part of the world are they trained and treated so well. Oxen, of whatever breed, should be treated with kindness and managed with judgment and skill. Without this, one breed is about as good as another, and under this kind of management none can be regarded good. Oxen, under proper training, can be rendered as obedient as a well drilled platoon of soldiers, and this even without a blow from the driver.

ED. RURAL WORLD:—Permit me to inquire of your Spring River correspondent, in what county he lives, and what land can be bought at per acre, and whether it is well timbered, broken, or level, and if good for wheat. I

would like to go further south, where it is not so cold and unpleasant in winter, and where I could raise fruit and wheat.

Corn looks tolerable well in places here. We have had a wet, cold spring, and some corn on low lands is rather weedy and drowned out; but the prospects are that we shall have a tolerable crop. There is not much fruit—some good rye and some wheat.

FARMER.

Memphis, Mo., June 26.

MAKING HAY.

We expect to see our haymakers make their hay as usual—that is, we expect to see them wait till their hay is nearly ripe—and in some cases quite—before they begin their harvest; and then finish it when the heads have dropped their seed. This is the usual slovenly, hurtful way. Great is the loss in consequence, involving the loss of almost the whole crop—for what is left is nearly all carbon, wood. And this the cattle have to eat. All this may, as well as not, be prevented. No expense more (or little more) to save the whole—the full strength of the growth. We know there are many who object to this early harvesting. There was a time when there were many more to object to it; there was a time when they were all against it. But every year more green hay is cut.—Why is this? And we find that our best farmers are they that do it. Is there not something here to tell us that we are too much attached to our opinion—that we may be wrong—that we are wrong?

Harvest hay, even if a little mould gets into it. It has still the full strength—and the cattle will eat it with a relish.

Is it difficult to harvest? That is but a slight thing in comparison to the benefit derived from early harvesting. Do not attempt to dry by the sun. That hurts it, and the sweating process will still take place. Cure in the cock.—Run your risk; but keep a good eye out. Take as much advantage of the weather as possible. This can be done the more readily by the aid of machinery—and we find machinery a great encouragement in this respect.

[Written for Colman's Rural World.]
FIGHT THE WEEDS.

Has the farmer made up his mind to wage war upon the weeds? He probably has, if he has taken a lesson from last summer. Such weeds were never known before—and they have scattered seeds far and wide. These seeds germinate this season, such as did not take root the last year. There is an abundant crop in prospective. If this is permitted to grow, it will be one of the most serious injuries in the West—in the rich, tenacious soil of the West. What to do is, to work thoroughly and constantly all hoed crops; cut grass early, so as to prevent the maturity of seeds; and, where practicable, cut down weeds before the seeds ripen, which has to be done in many cases when the stalk is yet green. Thorough work made this year will lessen the work for other years, and be an advantage in the increase of grain. Now is the time to fight the weeds. It is an enemy in the field, depend upon it. Get rid of it at once.

F.G.

SMUT IN WHEAT.

The prevailing opinion among European writers is, that smut in wheat is caused by an insect—an eel-like worm—which is said to be in the seed wheat when sown, and by the moisture communicated to the seed in the earth the insect is enabled to burst the walls of its prison, and, escaping, rises to the surface and secures a lodgment between the leaves of the growing plant, near the centre—as the grain where it begins to develop. It then works its way to the head of the growing wheat and makes its entrance into the embryo grain, which destroys the natural development of the wheat and causes the diseased transformation which we call smut.

In the Ohio agricultural report for 1857, the able and efficient secretary, J. H. Clippart, furnished an article with several illustrations, giving the natural history of the insect and its effect upon the wheat plant. The facts given were chiefly derived from the observations of British and continental European writers, and it may be considered presumptive in us to attempt to controvert such distinguished authority. But we will, nevertheless, venture the opinion that the worms found in the diseased grains are rather the effect than the cause of the disease. All diseased bodies, whether animal or vegetable, are subject to peculiar kinds of parasites. The diseased state of the subject furnishes the requisite conditions for the propagation and development of the insect. We know this to be the case in thousands of instances, and judging from analogy it may be so in the case under consideration. The insect is denominated the *Anguillula Fritica*.

In the *Journal de Agriculture Pratique*, M. Montague, who draws his information from a French naturalist, who has given the subject much attention, gives the following as the means most efficient to prevent its increase. It matters less whether the insect is the cause or the effect of the disease provided the remedy is effectual.

The author, as a substitute for lime as usually applied, which he says has no effect upon the living insect, recommends acidulated water, composed of one part sulphuric acid to a hundred and fifty parts of water, in which the wheat is to be steeped twenty-four hours, this he asserts will effectually destroy all the *anguillules* contained in the grain. This process of preservation is neither expensive nor difficult to carry out, and that the germinating properties of the grain are in no way injured by it.

It is also recommended that the greenings from diseased grain be taken care of so as not to find their way back to the fields in the manure or otherwise. It should either be burned, or, if cast to the fowls or other farm stock, it should first be submitted to a temperature sufficient to destroy the life of the insects.

We throw out these hints for what they are worth, hoping that they may lead to such observations as may furnish additional light upon the subject.

Repeated experiments prove that paint applied between November and March, will last twice as long as that applied in warm weather.

PREPARE FOR DROUTH,

By sowing corn for fodder. It is not likely that last summer will be repeated. We shall probably have the usual drouth, and consequent short pasture. Prepare for it then by sowing a small piece of ground with corn. Sow broad-cast, or in drills—drills the best, as then the cultivator can be used, weeds kept out and the crop improved. June is a good month to sow in. This will bring the fodder on in August and September, when pastures are expected to suffer. If large quantities of corn are thus grown, the fall pasture will be better—a benefit both to the cattle and the land. Pastures should not go too short into winter quarters.

DRAFT TEST OF MOWING MACHINES.—The following is a statement of the Draft test of the different Mowing Machines, tried on the farm of T. T. January, on the 5th inst., under the management of the Directors of the St. Louis Agricultural and Mechanical Association.—There were four machines tested, and their respective drafts as exhibited by the Dynamometer, and the lengths of the cutter bars, were as follows, viz:

Champion, No. 2, exhibited by Barnum & Brother, length of Cutter Bar five feet, Draft 350 lbs.

Ball's Ohio Mower, exhibited by Kingslands & Ferguson, length of Cutter Bar four feet six inches, Draft 350 lbs.

Buckeye, exhibited by Koenig & Co., length of Cutter Bar four feet six inches, Draft 400 lbs.

McCormick's Two-Wheel Mower, exhibited by J. S. Crouse, length of Cutter Bar, four feet six inches, Draft 475 lbs.

It is proper to state, that the work of all the machines was well done.

NORMAN J. COLMAN,
Sup't Ag'l Department.

MOISTURE, HEAT AND AIR.

Summer has again returned, and with the growing crops, the weeds will strive for the mastery. One of the earliest declarations of God to man, was: "In the sweat of thy face shalt thou eat bread." In this connection, weeds are regarded by many as a nuisance—a curse to the farmer. Not so, weeds are a blessing, and cause materially the fruitfulness of the land. The mistaken notion too generally prevails among farmers that cultivation is only essential for the extermination of the weeds, and but for their presence the surface of the ground would seldom be broken, during the growing period of garden vegetables and farm crops. The essential elements of nutrition and growth are—moisture heat and air; and a deep, thoroughly pulverized soil are the necessary conditions to secure these in due proportion. To maintain these conditions during the season of growth, it is not only necessary that the ground be deeply and thoroughly broken up before planting, but the surface requires repeated stirring, and always as soon after each rain as possible, after the excess of water has subsided. A soil well drained, and kept constantly pulverized to a suitable depth, consti-

tutes the philosophy of tillage; and yet there are few farmers of the present age who fully appreciate their importance; and but for the rapid growth of weeds threatening the destruction of the crop, how seldom would the surface of the soil be stirred by the majority of farmers? We feel warranted, both from experience and observation in asserting that the corn crop of the entire West could be more than doubled by a careful attention in securing the simple conditions of a well-drained, constantly pulverized surface—and the same may be said of all summer crops. As a question then of profit to the farmer, it is important for him to inquire, whether it is not better to cultivate twenty acres well, than to run over forty acres but imperfectly. It has been the custom of most farmers to follow a set rule in cultivating corn—running through the rows a certain number of times with the plow, without reference to circumstances of weather, &c. A plow may be the most appropriate implement for the first deep dressing, after that some of the improved cultivators are the most effective in securing the best surface for a vigorous, healthy growth, and at the same time leaving the surface of the field in that condition least liable to wash.—The state of the weather should govern the time, and the number of dressings a crop should receive. If the weather be dry, frequent stirring of the soil is the more necessary, and if continued, and timely, it is an almost infallible protection against the effects of drouth; and if drouth is expected to follow a rain, the sooner the surface is broken the better it will prove for the crop, because the sooner the work is done, the less moisture will be lost by evaporation. A thorough cultivation of a few acres is more profitable than the imperfect tillage of many.

CUTTING TIMBER.

If oak, hickory or chestnut timber is felled in the eighth month (August,) in the second running of the sap, and barked, quiet a large tree will season perfectly, and even the twigs will remain sound for years; whereas that cut in winter, and remaining until the next fall, (as thick as your wrist,) will be completely sap-rotten and will be almost unfit for any purpose. The body of the oak split into rails will not last more than ten or twelve years. Chestnut will last longer, but no comparison to that cut in the eighth month. Hickory cut in the eighth month is not subject to be worm eaten, and will last a long time for fencing.

When I commenced farming in 1802, it was the practice to cut timber for post fencing in the winter. White oak posts and black oak rails, cut at that time, I found would not last more than ten or twelve years. In 1808, I commenced cutting fence timber in the eighth month. Many of the oak rails cut that year are yet sound, as well as most of those formed of chestnut. If the bark is not taken off this month, however, it will peel off itself the second or third year, and leave the sap perfectly sound. The tops of the trees are also more valuable for fuel, than when cut in winter or spring.

I advise young farmers to try the experiment for themselves; and if post fences will not last twice as long, I forfeit all my experience as worthless.



HORTICULTURAL.

[Written for Colman's Rural World.]

The Newer Varieties of Strawberries.

Having fairly tested several of the newer varieties of strawberries that have been heard so much about in the horticultural world for the last year or two, and seen others, we are prepared to give our opinion concerning them.

The great Buffalo Seedling, which has been out some three years, and which our Eastern friends had previously discovered to be identical with McAvoy's Superior, has been proved to be so here. Nearly, or quite, all who have grown or seen it, agree in conceding it to be the same, or so near like it, as to be a distinction without a difference.

The writer did not invest in that stock, therefore has not been bled as many others have, but has since seen it, and has no hesitation in saying that the Superior and the Buffalo are the same.

All that needs further to be said, is, that the old McAvoy's Superior is a good variety, and still has a few votaries who grow it—but its defects overbalancing its merits so much, it has been generally discarded by market growers, or, rather, never came into favor with them:—and to have palmed off on us an old variety (however good) under a new name, and at a high price, and with a great flourish of trumpets from Lords and Reverends, is a swindle and a cheat that deserves and should receive the severest reprobation.

The Russell, which Hovey also claimed to be identical with both the above—is quite distinct from either, and is a variety having some good points in its favor. It is a vigorous grower and (so far as the writer's experience goes) a hardy plant, having stood the severe winter before last as well as the rest, though the leaf, which is large and broad, is rather thin and delicate and subject to spot with rust early, and the stems which hold the fruit are the most fragile and tender of any variety known. Its best qualities are, it is undoubtedly very productive, of the largest size, and very handsome in shape and color, and of fair but not extra quality, neither sweet nor acid, or having much character. But it damages in appearance quicker and worse than any variety we know of, and can only be made profitable for market by careful and good cultivation and very careful handling—but with these might become very profitable; shall try it further on a small scale, and not discard it yet.

French's Seedling is unexceptionable as a grower; the plant and leaf being healthy, vigorous and hardy. But the main feature claim-

ed for it by its Jersey originators—namely, extra earliness—ain't there. It is, in this respect, a humbug, being some days later than the Wilson. It appears to be productive, and the fruit (where exposed to the sun) of a handsome, bright scarlet—but where hid by the foliage (as is mostly the case), the fruit is pale, unripe looking, when it is really quite ripe and soft. It is also a very soft, white-fleshed insipid berry, and but little to recommend it except the habit of the plant.

Of the Green Prolific and Agriculturist—(parent and child)—we have seen but little; but from that little we really do expect something valuable to come out of one or both of these varieties: they are both remarkably strong growers—that we know, and capable of producing monstrously large and fine fruit, and some of our growers already claim for the Agriculturist a productive capacity double that of the Albany. Others dissent. Time must prove—we certainly think the latter the most promising new variety extant. C.S.

MULCH THE TREES.

Have people mulched their fruit trees as they should? We fear they have not—only the few—they who have the best orchards and get the best fruit. Remember, mulch is a protection to the ground. It has a two-fold benefit: It keeps the ground moist, and it prevents weeds from growing up. Almost anything will do for an orchard mulch—straw, (cut, the better,) saw-dust, tan-bark, manure, and mellow soil. The top-soil of an orchard made thoroughly mellow, serves as a guard against drouth. This a young orchard should have, and a mulch besides.

EARLY PRUNING.

Have we an eye out to pruning as we should have? We fear we have not—only the few. Begin early, and most of the work is done, for the thumb and finger can much more readily do what, later, it requires the saw or the knife. This rubbing off the shoots is only play-work. Not only that, it prevents the loss which the greater growth entails—for what is cut away, is so much loss to the tree. Prevent this by removing the incipient growth. The direction will then be in the usual currents of the tree.

But you will find some limbs that have been making too much growth, that are in the way of others, or that are in the shade, or that draw the nutriment from other limbs which are needed for the tree's balance. Clip these. Let your object be a chance for the sun and air. Avoid therefore density. This is your first principle in established fruit trees.

Next, do not permit a too great growth, as it is always at the expense of fruit. Let symmetry come in for the last share, even where ornament is aimed at, as the fruit of a tree is one of its chief ornaments, especially where the color is distinct and the fruit is large.

Give air and sun, and check too much growth—and do it in time.

Let each part of your business have its proper time.

SAVE THE FRUIT.

Remember the curculio: it is at hand. Shake off on sheets and burn. This repeated for a few weeks, will save the plums—otherwise they are lost. This is not only the case with plums, and the more tender fruit—but apples and pears, and even the grape, are affected. A little trouble will save the crop. It can readily be done with young orchards. If the thing is neglected, then prevent a repetition in the future. This is done by removing the fruit as it drops prematurely—as it will, the tender kind. The more hardy, the less so.—This course will not absolutely prevent the curculio—but it is one way to lessen the evil. If all did it, in a year or two there would be little of the pest left. Hogs in an orchard will clean it from dropping fruit. Hens that have the run of a yard will keep the ground clear of falling fruit, it is said. Take care of the fruit, for it was for this that your orchard was planted.

[Written for Colman's Rural World.]

HOW TO MAKE WINE.

Not according to this receipt or that. It seems as though there were a thousand ways to make wine. This is all wrong. Such multiplicity only perplexes. The simplest thing in the world is to make wine; or, rather, wine is not made—it makes itself. Simply express juice, and let stand. That makes wine: that is the whole of it.

For domestic wines, which people will drink, treatment is required. Here sugar must be added—but this is all. Were there sugar enough in the berries—currants, rhubarb, &c.—it would come under the head of grape wine. Each man may judge as to the amount of sugar he wants. Some people like sweeter and some sourer wine. Make to suit taste, and the sugar is your criterion. For wild, sour grapes, a pound of sugar to a quart of juice is the rule. Some have a quarter or even a third less.—The more sugar, the sweeter will be your "wine." All wines are alike in one respect—in the general wine taste. The difference is made by the flavor of the fruit. Thus the strawberry wine is different from the blackberry wine, and these different from the grape. The reason why the grape is best (to a cultivated taste), is, that its sugar is better—differing from cane sugar. A fruit *should* have its own sugar. But the grape flavor also is excellent—Flavor and sugar unite in the grape; and hence it makes the best wine—so good that it is called the only wine.

But a man can help to make wine—help just as he does in anything—that is, he can see that only pure, ripe grapes are used; that vessels are clean: in a word, that everything is done in a workmanlike way. This will improve the article just as any article is improved by care in the production. Give then the grapes a chance to ripen *thoroughly* their fruit, and a good chance for fermentation in clean vessels. If the temperature is low (in the long stage of fermentation), the wine will be the better—but it will take the longer to make it. In Europe, casks are sunk 60 feet into the earth. That gives uniformity, as well as a low temperature. F.G.

THE LAWTON BLACKBERRY.

From the excellency of this fruit, we cannot help again drawing attention to it. There are those who like the strawberry—and we are one of them—no greater enthusiasts than we; but the blackberry has that to recommend it, which the strawberry, or no other berry, has to recommend. It has a flavor almost equal (and some say superior) to the strawberry; greater juiciness; equal beauty and productiveness;—while, as to health, there is nothing equal to the blackberry—in this respect, it stands alone.

It can be cultivated on all rich soils—to raise it largely, it must have rich ground. It can be raised cheaply; it can be raised with certainty. It is beyond the influence of the frost; it will not blast its flowers; and it is hardy. It requires little care, comparatively. Mulch well with rotten manure, to keep the grass out, and to feed the plant, which extends its roots widely and near to the surface. Cut down to three or four feet when the canes get too rank, as they will in such soil as they should have.

It is now, June 8th, ripe in the vicinity of St. Louis.

Grape Culture and Wine Making in California.

A correspondent of the *New York Tribune*, in a letter to that paper, on the vineyards of California, gives the following interesting account of the manner of planting and cultivating the grape, and the process of manufacturing the California wine:

The whole process of planting and taking care of one of these vineyards until it matures into a perfect state, is one of the simplest things in the world. Nor need the cost of labor deter any one from undertaking the task. The labor of the very largest vineyard in Sonoma is carried on entirely by Chinese, who can be hired at cheaper rates than almost any of the laborers of the East. The only obstinate element in the way of raising a vineyard in California, is that of time, and this, it must be confessed, goes against the grain of the people amazingly. If it took no longer to mature a vineyard than to level a mountain in search of gold, to drain a river, or build a city, or overcome any other obstacle that could be overcome—the face of the whole country might be dotted with vines. But here nature will have her own way, and she has declared in the most prepotent manner that if you will have one of her choicest gifts, you have got to learn to labor and to wait at least five or six years. With only this drawback, the production of a perfect vineyard is within the reach of the most ordinary craft and industry.

At the proper season, which is any time from December to March, the cuttings are set out in parallel rows, about eight feet apart, and the ground between them is plowed in the same way and with the same kind of instrument, as corn is plowed in Kentucky and Illinois. The art of pruning is attended with no more difficulty—and when this is done, any one who wants to set out a new vineyard, can obtain all the cuttings of the Mission grape he wishes, for asking.

As to training, the usual practice is to fasten the vines to stakes four or five feet high—and many persons let these stakes remain for an indefinite period. But the best plan is to remove them entirely after the vines begin to bear, and let the grapes hang as near the ground as possible. They ripen better in this condition, and are said to produce the best wine.

Far more interesting, however, than any of these methods of culture, to both the spectator

and owner of the vineyard, is the season of the vintage. This takes place about the middle part of October. As the weather is always delightful, old and young, of both sexes, flock together to join in the gathering. There is no fear either of rain or intense heat, and there is scarcely breeze enough to stir the broad leaves of the vines, which now begin to put on their russet coat, to be changed soon for one in which the pink and crimson will predominate. Nimble fingers are seen everywhere clipping the ripe bunches and throwing them into clustering heaps. The ring of merry laughter is heard over all parts of the vineyard. The luscious load, heaped into baskets and boxes, are taken in wagons to the wine-press.

Now commences in sober earnest the real business of making the wine, and this also consists of the simplest contrivances. The fruit, thoroughly ripe (none other should be used) is first subjected to the operation of mashing. This is done by one or two hands (the feet are never used for this purpose in Sonoma as in most of the countries of Europe) sometimes in a wooden tub or barrel, with a long-handled stamper, but most usually with two parallel rollers, between which the berries are crushed in such a way as not to break the seeds or kernels. Some persons strip the berries from the combs or stems before mashing because they say the tannin extracted from the stems imparts a harsh taste to the wine; but others prefer crushing the grapes on the stems; and these claim that the tannin acts as a preservative of the wine, and rather imparts than injures its flavor. Whatever the difference of opinion on this point, they all agree that the pressing should be commenced as soon as possible after the pressing or mashing is over; for nothing injures the juice as much as exposure to the atmosphere.

As soon as the juice (or must, as it is called,) comes from the press, it is collected in large vats or casks to undergo fermentation, which takes place usually within twenty-four hours thereafter. This sight to a stranger is an interesting one. He sees the agitated and steaming mass whirling around with much violence, and it reminds him of nothing so much as the boiling and bubbling of the witches' cauldron in Macbeth. But let him not approach too near, or stand too long over a seething vat; for out of it escapes in great quantities the deadly carbonic acid, which, disengaged from the heated fluid, takes its flight in clouds of vapor. The most careful wine makers guard against any evil effects from this cause by keeping the fermenting vessels covered, and allowing the gas to be conducted through pipes or tubes into basins of water. This also obviates the evil tendencies of contact with the air, to which the young wine is extremely sensitive, and from which, if too much exposed, it imbibes the most hurtful properties.

When the first fermentation, called the vinous (because it generates spirits of wine or alcohol), is ended, the wine is placed in the cellar in pipes, which are kept full and tightly bunged, so as to exclude the atmosphere. Some allow it to remain in these, on the lees, until the second or spring fermentation sets in, while others draw it off once or twice before that period.

It is a curious fact that this second fermentation always takes place about the time the young buds begin to put forth on the vines the following spring, which has led some to suppose that there is some sort of sympathy between the new wine and the new shoot, as if the former wanted to rescue itself from its unnatural bondage and be a bud again; or as if it meant to make protest, by this internal struggle, against the harsh decree by which its vegetable life is extinguished, and it is made to pass, Proteus-like, into a new form, where, by the subtle law of its being, it assists in vitalizing and renewing the energies of man. If it outlives this second agony without passing in-

to the acetous fermentation, which turns into vinegar, it becomes clear, sparkling and aromatic, and goes on acquiring strength, body and durability for many years.

St. Louis Horticultural Society.

SATURDAY, June 23, 1866.

Society met. President Colman presiding.

Dr. Peabody, from the special committee appointed at last meeting, made the following report:

The committee appointed at the last meeting to examine and make report concerning the progress and success of the St. Louis Fruit Preserving House, beg leave to submit the following

REPORT:

By arrangement with the worthy President of the St. Louis Fruit House Company, S. R. Kellogg, Esq., the committee paid a visit to the above named establishment, where they were received and courteously conducted by that official through the establishment, and everything connected with it was freely and fully explained. The structure of the house, the principles on which rest all expectations of success—the means adopted to apply these principles practically—the chemical reagents and absorbents, were all exhibited, as well as specimens of fruits within the house for preservation.

To make our report brief and comprehensive we note:

1st. The method relied on by Prof. Nyce's patent, under which this Company is organized, is not to introduce into the body of the fruit any foreign agent, such as salt, sugar, creosote, &c., which preserve the organic vegetable tissue by chemically changing its nature, nor to use heat, which by expelling the air, creates a vacuum in which the fruit, with the loss of color, consistence or flavor, reposes indefinitely without decay: but it is done by removing or rendering inactive the agents of destruction, which are the following, viz: Heat, light, impure vapors, moisture and oxygen.

2d. Before proceeding to describe the Fruit Preserving House and what they saw in it, your committee would state in general the methods by which these destructive agents are removed.

Heat is neutralized by the use of ice, applied in the manner hereafter described, by which an even temperature of about 32° Fahr. is preserved through the whole year. Light is kept out by having no windows to the house and keeping the double door shut. Impure vapor is avoided by allowing nothing in the building which can generate it. Moisture is summarily and pretty effectually removed by covering the floors, and, as many other horizontal surfaces necessary, with powerful chemical absorbents which take up from the surrounding atmosphere all its free moisture emitting any disagreeable odor.

Your committee observed that the absorbent used in this establishment was the chloride of calcium, or dried bittern, a substance left in the tanks used for the manufacture of salt. This substance absorbs, not only the natural moisture of the atmosphere, but that which is emitted from the ripening fruit. The removal of that subtle and destructive agent, oxygen, is the only remaining task, and your committee are disposed to think the principal difficulty. The method relied on for practically accomplishing this, is by making the space containing the fruit, from which heat, light, impure vapor and moisture have already been excluded by methods above mentioned, as nearly air-tight as is practicable, and then allowing the carbon or hydrogen developed by the ripening fruit to unite with or take up the oxygen of the surrounding air. The product of the first union, i. e. of carbon and oxygen is carbonic acid gas, which, filling the spaces around the fruit, is entirely harmless for its injury or destruction. The product of the second union, i. e. of hydrogen and oxygen is water or moisture, which, upon being evolved, is instantly seized upon and devoured by the chloride of calcium on the floors. Mr. Kellogg informed your committee, and they have no reason to doubt his statement, that a room filled with fruit and kept shut a few days, would be filled with an atmosphere in which a candle would instantly go out, showing a removal of the oxygen of the air. The fruit room showed to your committee, had been opened several times that day, and the candle in the hands of our courteous guide, showed no signs of going out while in it.

3. Having briefly described the methods by which the fruit destroying agencies are neutralized and removed, your committee will now speak of the fruit preserving house itself, and its internal arrangements. It has been completed but a short time, and stands on the east side of Third street, near Plum. It stands on the ground 50 by 77 feet, and about 25 feet high. The ground was first made perfectly level, and pounded down even with the top of the founda-

tion walls. On this was spread a covering of tar and pitch half an inch thick to exclude the moisture from below. Upon this impervious covering stands a stratum three and a half feet thick of short, dry shavings or chaff, and above this the water-tight metallic floor. The building has all around it two walls, also metallic, three and a half feet apart, between which is also placed the same light non-conductors of heat. These walls are carried up about twenty-five feet, and filled in between in the same manner. The roof is constructed in the ordinary manner, of joists and timber. A space over the whole structure, directly under the roof, and from six to eight feet deep, is divided off from the space below by a water-tight galvanized floor. This space between this metallic floor and roof is filled with ice, with the ordinary covering of sawdust on top for its protection. By this arrangement the space for the reception of fruits is surrounded, on the four sides and bottom by three and a half thickness of chaff or fine shavings, and on the sixth side, or top, by solid ice from six to eight feet thick. Through the middle of this space, thus surrounded, runs a hall about seven feet wide, and on each side of this hall are five rooms, each with a door opening into the hall, and all separated from each other and from the hall, by metallic partitions, air tight. The doors are all tightly latched, so that very little air can pass through them. Each of these rooms, all similar, is about fourteen feet high, fifteen and a half wide, and seventeen feet long, affording a space inside for storing fruit equal to 36,900 cubic feet, and supplied with tables, stands and shelves for the reception of fruits. In the partition between each room and the hall is a small glass window, made and fitted in air tight, through which is exhibited a thermometer, marking the temperature within. The entrance into the frigid regions, thus divided up, for the convenient storage of fruits, is by two doors, one of which must be closed behind the person entering, before the other can be opened. The whole expense of the house thus far has been \$18,000.

4. What your committee saw inside. The establishment had been completed and made ready for the reception of fruits but a few weeks before, and hence very few fruits were found within. Several hundred boxes of lemons were observed piled up in the hall, ready to be stowed away in the rooms in a few days; but, as this fruit had been inside but a short time, your committee gave it no attention. Preceded by President Kellogg with a lighted candle in his hand, your committee entered one of the rooms, where they found several bunches of bananas and pine apples hanging on the walls, and large quantity of strawberries, some in little boxes, some in quart baskets, and some in crates, just as they had been brought to market. A few of these delicious berries of large size were hanging about the room suspended by strings tied to the stems. Your committee were assured that no particular pains had been taken to secure strawberries of superior size and quality, but they had been purchased on account of the Company, some in market, and some at Dr. Clagge's fruit Bazaar. Some strawberries coming in very bad condition, and some which had been wet had been carefully picked over, but most had been put in just as received.

Your committee carefully examined boxes and baskets of Fillmore, Wilson's Albany, and other varieties which had been in the room five weeks, and they could detect no change whatever in their general appearance. In a very few instances some berries, especially those suspended by strings, seemed a little dry, but not the slightest appearance of decay was visible. Specimens from different baskets were tasted. The delicate flavor of this most delicious fruit seemed as distinct and unimpaired, as on the day of picking. Whether the same condition of things will remain five more weeks, or a longer period, your committee cannot positively decide. Apples, grapes, and other fruits of firm, impervious rinds, they have no doubt, may be preserved through the whole year. Whether the strawberry and the peach will thus submit to Prof. Nyce's patent, there is still some doubt. If strawberries can be kept even till July and August, it will prove a valuable acquisition to our fruit loving community.

President Kellogg also exhibited specimens of apples, which had been kept since last fall, in a preserving house in Cincinnati, and which he had brought from that city a few days before and deposited in the house here. They seem firm, fresh and plump as on the day they were taken from the trees. One of these apples—a fine Baldwin—which had become a little bruised, was cut and tasted by your committee. It had lost none of its exquisite flavor.

In reference to the extensive use of this method of preserving fruits, and its general introduction among fruit growers, your committee will only add that aside from the use of the patent, a house suitable for a small fruit farm, ten feet square inside, and holding

two hundred and fifty bushels, will cost, at present prices, about \$450.

It is the intention of the St. Louis Fruit House Company to fill up their ample rooms with raspberries, currants, peaches, pears, grapes, apples, &c., &c., each in its season, not for the purpose of testing the principles and methods above described, for these have all been abundantly settled elsewhere, but in order to keep the families and markets of our city supplied with fresh fruits of the choicest kinds, at seasons of the year when such delicacies will command a good price, and also to make abundant the rich bounties of nature at those seasons of the year when that stubborn dame refuses to yield them.

In conclusion, your committee are unanimous in expressing the belief, that the introduction of this method of preserving the delicious fruits and other products of the earth, is of incalculable benefit, both to the producer and consumer. It will spread the delicacies of the summer garden over all the months of the year. It will force glorious summer and teeming autumn to unlock their golden treasures at all times and seasons, and pour them out into the icy lap of winter. It will stimulate fruit raising, for it will enable the producer to choose his own time for putting his delicate products upon the market. He can make his contracts beforehand, and deliver his fruits on the day and hour specified: So many gallons of strawberries for Christmas, and so many bushels of peaches for New Year's day, will enable him to realize a fair return for his skill and labor. Grapes, pears, apples, and peaches all the year round, and at moderate cost, cannot but work great improvements and changes in the whole business of producing them.

It must also vastly increase the consumption of fruits, and thus stimulate their production. Should the parties owning the patent for this city and vicinity, pursue a liberal course, we doubt not but all the above and still wider benefits will flow from it.

All of which is respectfully submitted.
Chas. Peabody, John H. Tice, L. D. Morse, C. M. Saxton, Committee.

The following fruits were exhibited:
By N. J. Colman, from Colman and Sanders' Nursery, branches densely filled with fruit of the following: currants: Fertile de Pallua, White Grape and White Dutch; and of the following raspberries, St. Louis, Philadelphia, Purple Cane and Doolittle's Black Cap.

Mr. Jewett exhibited branches of grapes affected by disease, one by a scab on the skin, the other by a species of rot, perhaps produced by sun scald.

Mr. President remarked that one of our citizens, perhaps the most experienced grape grower in Missouri and of extensive observation, had written a book on grape culture and wine making, which could be had at Mr. Saxton's. He suggested to the Society if it thought proper, to appoint a committee to review it. As it was a book embodying western experience, it was a safer guide than a book produced in the East. Not only so but it was reliable in the varieties it recommended, they being such as had been cultivated here with uniform success. It is well known that all varieties of grapes do not succeed equally well everywhere. Most of those highly recommended in the East are worthless here and vice versa.

Mr. Peabody said he would make a motion to raise a committee, if he would not be placed on it as Chairman. He had read the book of Mr. Husmann and considered it valuable to the grape growers in Missouri.

The book contained not entirely new matters. It contained Husmann's essay on the vine, published six or seven years ago, also several essays of his since then on the same subject. It however contained what was entirely new: full and explicit directions for wine making, so that any one can make wine. This he considered the most valuable part of the book. It also gave Gall's method, valuable in years when the fruit does not mature well; but there was a diversity of opinion whether there should be a departure from the old method of making wine from pure juice of the grape only, or by sugar when the must was insufficient in saccharine matter. By the latter method wine could be made very palatable to the taste, but not for hygienic purposes.

There was one part of Mr. Husmann's book which he thought might be of mischievous tendency; he meant that part which spoke of the profits per acre. He had no doubt that all that was stated had been attained by Mr. Husmann and by his neighbors, but they were men who had twenty-five years experience in growing the vine. Now the danger was, that some people of the city who had no experience in raising anything, would see his statements and go into grape raising, with the expectation of attaining the same result, which would meet with bitter disappointment. Not because Mr. Husmann did not state facts, but be-

cause experience is necessary to success in every undertaking.

Mr. Saxton said he should like to see our proceedings take a more practical form. We came here and talked at random, and said a great many practicable and useful things, which the secretary embodied in his report of our proceedings. This, however, threw too much labor and responsibility upon the secretary. He therefore suggested that at each meeting, some member prepare and read an essay on some subject connected with horticulture. We then would get the mature thoughts of the members upon such subject, which would be valuable, especially if such member has had long and varied experience in the matter treated of.

On motion of Mr. Peabody, Mr. Paddelford was requested to prepare and read an essay on the best method of raising the strawberry.

Mr. Jewett stated he should like to hear an essay from Mr. Tice on the prevention of the mildew and the rot in grapes, and the depredations of the thrips on the vine.

Mr. Tice said he most respectfully must decline preparing such an essay, first because he could not throw new light on the subject; and secondly, because no infallible remedy has as yet been discovered. For mildew sulphur has been found a remedy both in Europe and here. As far as his experience went, it never failed if properly applied and at the right time. For the rot, there was no remedy known as yet; and for the thrips, tobacco smoke, whale oil, soap and sulphur were recommended. As far as his experience went, sulphur was at least a partial remedy.

Mr. Saxton asked if the committee appointed at the last meeting to procure the Library Hall, for holding the American Pomological Convention, were ready to report.

Mr. Tice said, though not chairman of the Committee, he would report that he had seen Mr. Robinson the President of Mercantile Library Hall Association and that he had received a promise of both the Halls. But he had not made a contract for same, as the State Society had assumed all the responsibility of providing for said Convention.

Dr. Morse, the chairman, said that he had seen Mr. Robinson subsequently, had some talk with him respecting the rent of halls. That Mr. Robinson told him they could not be had free of charge, but he would make the charge as reasonable as possible. He therefore suggested that the Committee act in conjunction with the State Committee and close the matter as soon as possible. The Committee was so instructed.

JOHN H. TICE, Recording Secretary.

TO MAKE PURE APPLE WINE.—Take good, new cider, fresh from the press; dissolve in it sixty pounds of common brown sugar to each fifteen gallons of cider, and let it settle. Then put this fifteen gallons into a clean barrel, and fill the barrel up with clear cider, to within two gallons of being full; leave the bung out for forty-eight hours; then put the bung in, with a small vent. Let the barrel stand a year—the wine is then fit for use. It needs no racking. The longer it stands, the better. We give the above receipt on the principle on which Moses tolerated concubinage. It is so much better to drink wine without poisonous drugs, that costs but 20 or 25 cents a gallon, than the vile poisons which cost from \$3 to \$5 a gallon, that we think the change would be an improvement.—*Exchange.*

Let every home if possible be accompanied with the pleasures, the business of a well-kept garden. It greatly enhances the delights that cluster there, by furnishing its rich and varied sources of enjoyment. The climbing vine, the swelling bud, the opening blossom, the glowing beauties of Nature's coloring, cannot fail to remind us of the goodness of their Great Author, and to stir the heart with the most pleasant sensations.

The happiest hours of childhood are those spent in the garden. It is there the young and delicate blossoms of love and friendship bloom in all their radiant beauty. Who then would not have a garden?

[Written for Colman's Rural World.]
Grape Culture and Wine Making.

I have not seen mention made in the *Rural World*, of a small octavo volume, which has lately made its appearance from the press of G. E. & F. W. Woodward, 37 Park Row, New York, under the title: "The Cultivation of the Native Grape and Manufacture of American Wines, by George Husmann, of Herman, Mo." Indebted to the kindness of the author for a copy of this little book, I have read it with so much interest and, I hope, benefit to myself, that I feel a desire to call public attention to it, and especially the attention of all persons, who like myself, are engaged in the culture of the grape, or who intend to engage in this seductive enterprise.

The perusal of this book cannot fail to inspire the reader with confidence in the final success of grape culture, and encourage him to perseverance and renewed efforts in the prosecution of the same.

It is well known that Mr. Husmann has been engaged for many years in the cultivation and propagation of the grape, and has devoted to this interesting and important branch of horticulture, half a life-time of close attention and observation, and is now most deservedly considered the best authority on this subject in the western states, if not in the whole country. In this treatise he lays before the public, in the plainest and most unpretending language, the result of his experiences, dearly bought by much labor and many disappointments, and it is gratifying to learn from the statements made and from statistics given, that Mr. Husmann's efforts have been eminently successful, and that he is earning now a well-deserved reward for his labor and perseverance. "Then" says Mr. Husmann in his introductory remarks, referring to former times, "grape-growing with the varieties then in cultivation was a problem to be solved; now with the varieties we have proved, it is a certainty, that it is one of the most profitable branches of horticulture, paying thousands of dollars to the acre every year. Then wine went begging at a dollar a gallon; now it sells as fast as it is made at from two to six dollars a gallon. Instead of the only wine then considered fit drink, we number our wine-producing varieties by the dozen, all better than the Catawba." For this progress and success in grape-growing, we are to a large extent indebted to Mr. Husmann; it is his merit, and the cultivators of this healthy and delicious fruit and beverage will not fail to give him credit for it. This book, which has called forth these remarks, will be a welcome guide in their hands and the observance of its teachings will prove to them a source of gratification and profit.

TH. E.

St. Clair County, Ill., June, 1866.

Garden roses should be pruned after they have done flowering. Cut out the old wood where it is too thick, shorten such shoots as have a good eye or bud and a healthy leaf, and all that grows after this pruning will produce large flowers next year.

In November, cover flower beds with leaves, straw and litter.



EDITOR'S TABLE.

The Editor of this Journal will be absent on a trip East till about the 1st of August.

The Herald of Health.

This monthly opens a new volume (July) with a new Editor and host of new contributors. The present number is a most admirable one, having original articles from Alfred B. Street ("A Health to Water"—poetry); Rev. O. B. Frothingham ("The Limits of Liberty in the Excise Law"); F. B. Perkins, the Editor of the *Galaxy* ("Meals, Strength, Work"); Theodore Tilton ("The victory of Life"—poetry); Horace Greeley ("Thoughts on Human Life and Progress"); Wm. A. Burleigh, the poet ("Resignation"—sonnet); and a most excellent paper by the Editor, Geo. W. Bungay, on "National Health and Longevity."

The selections, which comprise the paragraphs and smaller articles, are an improvement on the former matter of the paper, and such as the Editor from his known tact and experience is expected to provide. There is more general matter than formerly, making the *Herald of Health* more universally acceptable.

Fresh Eggs in Winter.

For winter eggs, now is your time to lay in. Raise pullets of the Brahma kind, or Cochins. When they are seven months old, if well kept, they will lay. They will do so whether cold or not, temperature having nothing to do with it. This will give fresh eggs the winter through. A few chickens are sufficient. A neighbor of ours has eight hens, which furnish him all the eggs he wants, with some to spare for the neighbors. He has four members in his family. His hens are a cross between the Brahma and the Black Spanish.

WAGE WAR UPON THE WEEDS.—Farmers should remember how the weeds served them last year. This year, begin in time. You should already have begun. But begin now if you have neglected it. What a chance there is among your corn, potatoes, root crops. You will kill two birds with one stone by keeping the cultivator going and the hoe as much as possible—you will kill weeds, and improve your crop—and you will, for the season following, have better and cleaner land. There is a good all round in waging war against the weeds.

ONE OF THE GREATEST

Causes of ill health is costiveness, or indigestion. It has for its offspring dyspepsia, with all its attendant miseries, such as sick headache, sour stomach, no appetite, no energy, in fact, complete prostration. Coe's Dyspepsia Cure is a sovereign remedy, why do not you, who are suffering, make the experiment of the trial of a single bottle, it costs but a trifle to taste it, and will surely bring you relief.

FROM TENNESSEE.

ED. RURAL WORLD.—I have been some two months in this State, traveling in various directions hundreds of miles among the agricultural population, or those who should be agricultural. I find the cultivation of the soil carried on in the most primitive manner—very much like the darkest spots of Missouri—only more so. I have not yet seen two horses or mules hitched together to a plow; turning plows are scarce; the inevitable Bull Tongue is found everywhere, and is used for everything in the line of raising corn, cotton, or any other crop, and the green briars and blackberries show the fostering care of that implement, while a negro hoe of three or four pounds weight keeps them well pruned.

While this soil and climate is as well adapted to the culture of fruits and vines as any part of Missouri, you seldom see a good apple, hardly ever a fine peach, and never a grape—Hog and Hominy, or rather Bacon and Pone, is the great desideratum.

Northern skill and agricultural implements are much needed here, and many of the people know it, and hail every opportunity of hearing on these subjects.

I have talked up agriculture and horticulture among the people, and found many willing listeners. I have been telling them of our agricultural papers. I feel if you would send me a few sample copies of your paper for distribution, and send one copy to Mr. John T. Vass of this place, and ask him to act as your agent, I think he will do it earnestly and much to your interest. Judge E. L. Gardenhire is an enthusiastic and intelligent agriculturist, and probably would aid you also. Energetic and liberal measures would introduce your paper throughout the entire region, where none are now taken and many ought to be.

I hope to return to Missouri at least in time for our October fair, and the meeting of the National Pomological Convention. I trust we shall be able to show our Eastern and Northern friends samples of fruit such as they seldom find in their Northern homes, and that they will be received with a hospitality that will be a credit to the band of nature's noblemen, who are trying to place Missouri in its true position among the States of the Union.

Sparta, White Co. Tenn.

B. SMITH.

KEEP THE SOIL STIRRED.—Our soil is particularly calculated for mellowing. Simply stir it—and do it when neither too wet nor too dry. Mellow as deeply as possible; but at all events keep the surface in a fine pulverized condition. This is all-important on account of the great heat and consequent drouth of our climate. All "hoed crops" may thus be treated, all gardens. Whenever there is a chance, the ground, if dry enough, should be stirred, and continue to be stirred. This is farming. This is not only enriching, developing the resources of the soil, but improving it otherwise. As journalists we shall insist on this branch of husbandry.

Perform without fail what you resolve—if you are sure you are doing right.



AN ENGLISH POET.

England is prolific of young poets of late. These are usually imitators of the more immediate successful ones. They imitate rather the peculiarities than the merits of these poets.—Thus, Algernon Charles Swinburne, one of the latest, airs himself in the following alliterative way, combining much of Browning with more of Tennyson. Part of the first stanza is taken almost bodily from Mathew Arnold's "Nightingale." The third stanza appropriates the very rhyme and manner of Browning's "Misconceptions;" of course these detached appropriations must fall short of the unison and strength of the originals, which in turn must succumb to the higher force of the great bards who first reflected them. And thus we get to nature again where these masters of the lyre derived their inspiration. The poem which follows, is interesting from the skill used in its appropriations.

When the bounds of spring are on winter's traces,
The mother of months in meadow or plain
Fills the shadows and windy places
With lip of leaves and ripple of rain;
And the brown bright nightingale amorous
Is half assuaged for Ithylus,
For the Thracian ships and the foreign faces,
The tongueless vigil and all the pain.

Come with bows bent and with emptying quivers,
Maiden most perfect, lady of light,
With a noise of winds and many rivers,
With a clamor of waters and with might:
Bind on thy sandals, O thou most fleet,
Over the splendor and speed of thy feet;
For the faint East quickens, the wan West shivers,
Round the feet of the day and the feet of the night.

Where shall we find her, how shall we sing to her,
Fold our hands round her knees, and cling?
O that man's heart were as fire and could spring to her,

Fire, or the strength of the streams that spring!
For the stars and the winds are unto her
As raiment, as songs of the harp-player,
For the risen stars and the fallen, cling to her,
And the south-west wind and the west wind sing.

For winter's rains and ruins are over,
And all the seasons of snows and sins;
The days dividing lover and lover,
The light loses, the night that wins;
And time remembered is grief forgotten,
And frosts are slain and flowers begotten,
And in green underwood and cover
Blossom by blossom the spring begins.

The full streams feed on flower of rushes,
Ripe grasses trammel a traveling foot,
The faint fresh flame of the young year flushes
From leaf to flower and flower to fruit;
And fruit and leaf are as gold and fire,
And the oat is heard above the lyre,
And the hooved heel of a satyr crushes
The chesnut-husk at the chesnut-root.

And Pan by noon and Bacchus by night,
Fleet of foot than the fleet foot kid,
Follows with dancing and fills with delight
The Maenad and the Bassarid;
And soft as lips that laugh and hide
The laughing leaves of the trees divide;
And screen from seeing and leave in sight
The god pursuing, the maiden hid.

The ivy falls with the Bacchanal's hair
Over her eyebrows hiding her eyes;
The wild vine slipping down, leaves bare
Her bright breast shortening into sighs;
The wild vine slips with the weight of its leaves,
But the berried ivy catches and cleaves
To the limbs that glitter, the feet that scare
The wolf that follows, the fawn that flies.

OUR SAFETY.

What guard have we for our youth in this age of temptation to error? There is a refuge of safety—and it is ready at hand, and open to all. It is the morality which public opinion respects. Our laws are based upon it—our churches preach it: it is the fundamental principle of safety—namely, the Christian Religion. If a man is at a loss; if he is beset with evil; if he is in distress: there is the ark of safety, virtue. All religions are not a safeguard. That of the Turk is one. It is the religion of the sword—and must live or perish with the sword. What safety is there in such a creed, or those creeds that have passed away with the nations that entertained them? They were not based in an immutable law, and were not a source of safety. We have a safeguard then in our public opinion, ready at hand among us: we need but embrace it where we are. And it is a pleasure as well as a safety. It is not excitable; it has no temptations. It is moderate and permanent in its security. This saves us as a nation; saves our religion. It is Christian civilization that does this.

BREAD.

Good bread is one of the essentials of good living and health; and it does not a little for the peace of a household. It makes all feel about right to sit down to a meal and find the bread of the best quality. But wry faces are often made over bad bread. And what a mortification it is to the housewife to set before her family unpalatable and unwholesome bread. And yet there is much poor bread eaten all over the country. It is the one thing more poorly made than anything else, as a general rule. There is only here and there a good bread maker. It is raised so much as to be sour, or else is not well raised, or badly baked, too salt, or too dry, or the raising has killed the natural taste of the flour, or it is shortened with lard or something else to make it unwholesome. We have no particular way of making bread to recommend. There are many ways by which good bread may be made. There is more in the making than in the way. There is no one kind of raising that is infinitely superior to any other. The use made of it is the main thing. Never let bread raise too much, for the whole process is destructive to the natural properties of the flour. It is a fermentation, the first process of decay. Let the raising be done in as short a time as possible, and all the better if it can be done while baking.

Though we do not propose a way, we do propose a kind of bread. Of all the kinds of bread we think that made of unbolted wheat flour is best. It is best because it has all the wheat in it, contains more of the elements needed by the system than superfine flour, is easier digested, is shorter and sweeter, and is less concentrated, and when masticated is not so

doughy and tough. The juices of the stomach more readily permeate it, which renders it much more easily digested. The whole bolting process is wrong. The wheat as God made it, well ground, is better than it is after it goes through the bolt. Superfine flour is too concentrated, that is, it contains too much nutriment for its bulk. The stomach requires coarse food, and it must have it or it will not long be healthy. Feed animals on concentrated food, and nothing else, and we know how quickly they fail. Feed men on rich food and the result is the same. They become puny, dyspeptic, pale, weak and after a while generally diseased. We have used the wheat meal bread for years, as our principal bread, and would not be deprived of it for the best farm in the western country. It is raised generally, with the common yeast powder, sweetened a little with molasses, and salted. If it is shortened at all, it should be but little, and that with cream; mixed a little thicker than can be stirred with a strong spoon, but not thick enough to be moulded. It should be mixed as quickly as possible and put into the oven in all haste. Care should be taken not to burn it and yet to bake it well. That is our bread. We usually eat it three times a day, and have never failed to enjoy perfect health when we used it. We esteem it above price as an article of diet, and recommend it to everybody.

ABOUT POETRY.

Some poets scatter their thoughts like gems. There is no connection—no effort. All is loose and promiscuous. You find the gems as you would find them in a mine, as if nature had placed them there—which she has. Each is a treasure in itself; each bears a relation to the other; they are of the same order—the same value—some brighter, some larger, and so on; but all are pearls, or gold, or diamonds.

Of this kind, we know of no better specimen than Emerson occasionally furnishes us with, particularly in his "Humble Bee." This poem is a rhapsody—wild, free, careless, and yet refined, pure, brilliant. Nothing can surpass it in these qualities. But it lacks connection; it lacks art; there is not even a thread running through it to hold it together. The atmosphere indeed is the same; it is summer, or May—it is that in perfection: the very spirit of the time is there—and in this the poet revels. You have a wild vagary made in the heat of excitement—and whatever it is, whatever dross may be present—the whole is crystallized: you have it there, and it is a perfect work, not of art, but of nature.

Perhaps the lack of art and connection, is a defect in this poem. Yet it strikes us that more such poems would not be amiss. Why should they? As well have the sunshine and the wind come amiss—for they are here represented—not affected, not catalogued. They are given as we find them in nature, with this difference, that the author's sensuous, happy mood was given with them. The poem has music; it is alive with it, as the day and insect it describes. It is a more rare music than we find perhaps. It is such as we have hints of; the sweeter for being distant. And what a picture it presents us—as no field can rival, be-

cause it has not the tints, the allusions inspired by the imagination. Such careless, and therefore natural, poetry cannot be excluded; we cannot spare it. We accept it as we do nature—promiscuous, yet like, of a kind, true.

Collect these gems by art, and we have another order of poetry. We have the gems and the setting—the latter, itself, has a charm. We will step from one poem of Mr. Emerson, to another of his, to illustrate our subject. If the "Humble Bee" represents the promiscuous—"Each and All" represents the other class, where art binds the whole together, and makes by it one of the best poems—and absolutely the best didactic poem in the language. And yet are we more gratified by this poem than by its more careless mate? Genius asserts itself here, and we must acknowledge her sway. She has given us with art, the better poem of the two: not to satisfy a critical taste, based upon certain rules of formality; but she has given us the art and the gems—all is inspired. Of this kind Shakespeare is an example. But there is a kind that has all the brilliance of thought, natural and pure; but the art is artificial. Tennyson is a noted example of this.—He gathers his thoughts as they come to him—puts them in a common-place book for future use—and then when he has sufficient number of a kind to form a poem, he strings them together. You have the pure brilliant: the setting is of little account. In Shakespeare it is great account. So we say of Bulwer, the plot is important. But give us nature, whether we have the art or not. Present us the field with even its deformity; we need the green and the air it has. We shall be the better for them and the happier. But deliver us from false views—affected green and bad air. This is the staple of the day. Let us sip rather at the old fountain.

USEFUL HINTS.

FOR HOUSEKEEPERS.

Ribbons of any color, should be washed in cold soap suds and not rinsed. Iron them wet, and they will be stiff and nice as new, except some kinds of pink and blue, which will fade. These may be dyed to look as well as ever. Dip the blue in a little cold blue ink and water, and the pink in carmine, from a pink saucer, according to directions, and they will be perfectly restored.

Marble fire places should not be washed with suds, it will in time destroy the polish. After the dust is wiped off, rub the spots with a nice oiled cloth, then rub dry with a soft rag.

When you rub the knobs of your doors use a piece of pasteboard as large as your two hands, with a small hole large enough to just encircle the knob in the centre, and a slit in the paper to let it in. This slipped on, will keep off all soil from the paint, and is a nice way of doing it.

If your flat irons are rough, or smoky, lay a little fine salt on a flat surface, and rub them well; it will prevent them from sticking to anything starched, and make them smooth.

Rub your griddle with fine salt, before you grease it, and your cakes will not stick. When walnuts have been kept until the meat is too much dried to be good, let them stand in milk and water eight hours, and dry them, and they will be fresh as when new.

It is a good plan to keep your different kinds of pieces, tape, thread, &c., in separate bags, and there is no time lost in looking for them.

The water in flower pots should be changed every day in summer, or it will become offensive and unhealthy, even if there is salt in them.

Hops should be picked when they are full grown and begin to be fragrant; by no means let them remain longer, as a strong wind or rain will injure them greatly. Spread them awhile to dry.

Oat straw is best for the filling of beds, and it is well to change it as often as once in a year.

Cedar chests are best to keep flannels and clothes, as moths never are found in them. Red cedar chips are good to keep in drawers, closets, wardrobes, trunks, &c., to keep out moths.

When clothes have acquired an unpleasant odor by being from the air, charcoal laid in the folds, will remove it soon.

If black dresses have stains upon them, boil a handful of fig leaves in a quart of water, and reduce it to a pint, and a sponge dipped in this liquid and rubbed upon them, will entirely remove stains from crape, bombazines, &c.

In laying up furs for summer, lay a tallow candle in or near them, and all danger of worms will be obviated.

If you wish to select a carpet for durability, always choose a small figure, as they are the best cloth, and will do best service.

Silver-plated candlesticks should be cleaned by pouring on the tops boiling hot water, to remove the grease; when wiped dry, use whiting, rubbing them until bright. It does not injure plated ware at all. If sockets are too large for the candle, wind the end with a paper, but it should not be in sight. Always light them to burn off the cotton, before setting them up, but leave them long enough to light with ease.

Charcoal should never be used in sleeping rooms, unless in a grate; it is very deleterious, and frequently destroys life. If used in a furnace, let it be where there is air. It is very hurtful in a close room.

Wrap a wet sheet or blanket around you if obliged to expose your person in time of fire.

A bit of soap rubbed on the hinges of a door will prevent their creaking.

Scotch snuff put on the holes where crickets come out, will destroy them.

Dyspepsia a Disease of the Whole Body.

Dieting is a very good thing in dyspepsia—indeed it is a necessity. But we lay too much stress upon the stomach. The stomach is all. We are constantly working with this, when it is the whole system that is prostrated by inaction, the great source of disease. The grand cure here comes in: "Remove the cause." This, of course, may be aided by other means. Employ exercise, and you stir up the whole system—not the stomach only, as is the case with medicines and dieting. In dyspepsia, then, the stomach suffers only with the rest of the members. The grand cure is, removal of the cause, which generally is a lack of exercise. Exercise is enjoined upon man as a necessity to health. If we remit it, we suffer the penalty—the stomach only with the rest of the organs—more so than some of them, because more sensitive.

Nervous people cannot control themselves. Hence literary people are odd.

He who restrains himself in the use of things lawful, is not likely to trespass on things forbidden.

DOMESTIC DEPARTMENT.

RULES FOR PRESERVING.

All delicate fruit should be done gently, and not allowed to remain more than half an hour before it is laid on a dish to cool, and then returned. Continue so until transparent. Put no more in the pan than can lie without crowding. A pound of sugar to a pound of fruit, is a general rule for acid fruits. Preserving kettles should be broad rather than deep. The flavor of the fruit is preserved by covering the kettle. If sweetmeats become candied, set the jar in water, and let it boil around it. Tissue paper cut to nicely fit over the top, is better to preserve from mould, &c., than white paper wet with brandy. To clarify sugar; to every eight pounds of sugar, stir into two quarts of water the whites of two eggs, and mix with the sugar. While it is melting, stir frequently. Then place it over a moderate fire, and as it boils take off the scum. When clear, put in your fruit as above. Large fruit that is done whole, should first be boiled in a thin syrup, or it will shrink too much. Small fruit is best to stew half the sugar over it, and let it stand a day or night.

QUINCES.

Pare, and cut in eight quarter pieces; boil until tender, in a little water; turn them in an earthen vessel, and let them remain one day. Then boil and strain the parings and pits or seeds, which will afford a rich jelly liquid; to this, add your sugar, clarify, and when hot, lay in your fruit, and scald it an hour gently. Skim it out, and boil the liquid until sufficiently thick, and pour over. If you have but few quinces, prepare one-third, or half the quantity of the same sized apples cut in the same manner, and cook in the sugar syrup first, and lay in the bottom of the jar, and they cannot be told from the quince in flavor. If you wish to make quince jelly do not boil the cores with your preserves, but reserve them for this purpose, and add a few pieces of the quince, to give it a higher flavor. It will make a rich, clear, delightful jelly, with the usual amount of sugar made in the usual way. Some prefer quinces cut in rings.

PEACHES.

If you preserve them whole, they should be gathered before they are fully ripe, and before they part from the stone. Pare them, and boil in the syrup gently, until they are tender. If in quarters, crack the pits of half the peaches and boil in the syrup; strain and cook in the usual way. Put up in jars and glasses. Some prefer them cooked in a little water and the syrup poured over them hot. Jelly may be made in the usual way; mash them and strain through a jelly bag. Allow a pint of juice to a pound of loaf sugar, and if it does not readily congeal, dissolve an ounce or more of isinglass, and strain, and add. Put up in tumblers. The kernels should be cracked, and half of them boiled with the fruit.

If you wish them preserved in brandy, they should be gathered before they are ripe; rubbed with flannel, pricked with a large needle to the pit, in several places, and run the needle down the seam. Put them in cold water and boil them very gently until tender. Take them carefully out, fold in a table cloth or soft flannel. Have ready a pint of brandy; a pint of the juice in which they were boiled; a pound of loaf sugar. When the peaches are cool, lay them in a jar and pour over them. They may be used as a dessert.

PEARS.

These look best if of moderate size, preserved whole, pared, with the stems on. Make a thin syrup, and boil them tender. If boiled to fast they will break. They will be sufficiently cooked in half an hour. If you wish them nice, let them lie in the syrup in a jar, or tureen, two days. Drain the syrup from the pears; add more sugar; boil ten minutes; skim, and put in the pears; simmer them till they are transparent. Take them out; stick a clove in the end of each; and lay in a jar when cool. Then pour over the warm syrup. For common use, they are best done in quarters, boiled tender in a little water; then add half a pound of sugar to a pound of pears to the liquor, and simmer them gently half an hour. They may be flavored with lemon if preferred. They are nice for common use, baked. They may be done with the stems on and pared, or with the skins. Put them in a tin with a half a teaspoon of molasses, and the same of water, or the same of sugar and water. They will bake in an hour.

PLUMS.

May be preserved nice with the skins on or off. If on they should be pricked at the top and bottom with a large needle. If you take them off, turn boiling water over them. Plums require a pound and a half of sugar to a pound of fruit. Prepare your syrup thick, and lay in your plums to simmer, not to boil; let them remain in a scalding state until cooked through, at least two hours. Then skim out and boil

the liquor down about an hour. It must be thick to keep well. The flavor will be much improved by boiling in the syrup, half a pint of the kernels cracked. They must be strained out. Plums may be hardened, by scalding them in alum water; and when drained, pouring the hot syrup over them every day for a week, but if done with care they will remain whole preserved as above.

WOOL FOR FAMILY USE.

BY HETTIE HAYFIELD.

We will not risk an opinion on the mooted question of the profits of sheep-husbandry in this our great Western Valley, but we will say we know it is a convenient thing for the farmer's wife, with her great hearty family around her and subject to company every day, to have a joint always at command. The necessity for a fine saddle on state occasions, is indisputable.

We will not say in this day of horse and steam power, that it is always advisable to manufacture at home; but in a climate where woollens should be used for two-thirds of the year, they should for health's sake be abundant, and we have always noticed that they are more so when home-made than when bought.

The whole process of wool-work is dirty and disagreeable and very undesirable, unless the housewife can appropriate a room for the express purpose. When the work has to be hired, it is best for the young housewife to make a close calculation, in order to find whether her raw wool will not purchase, at some factory or store, the cloth needed, as cheap as she can produce it. In an experience of fifteen years we have found fine jeans and fine plaid linseys decidedly of less profit (leaving trouble out of the calculation) than brown or grey jeans.

The most economical method of home manufacture is, to have, through your shepherd's agency, a good proportion of your sheep black. This cuts off the most expensive and troublesome branch of the wool business, viz: coloring. Turn your wool all into grey jeans, which can be made of qualities to suit your laborers or rollicking school boys and be comfortable and respectable for both. Exchange the surplus for the plaids your less calculating neighbors have bartered to the stores, and you have your family provided for without staining a kettle. The wool factories make excellent cloths, but objectionable because their deficiency in width causes them to cut disadvantageously, and because the yarn being woven up in the grease makes it catch and retain dirt easily; besides, the cloth has a disagreeable, greasy, sheepish odor. You may have your yarn spun at the factory, and then having reeled and washed it, have it woven at home, and so procure a web of equal strength and superior smoothness to any wholly home made fabric.

If the wool is to be sold in the grease and is all of one quality, there is nothing to be done but to pack it as tightly as possible into clean, stout sacks. If to be manufactured at home, the first duty of the house wife will be to have the wool assorted—separating the black and white and picking out the fine fleeces for stock-yarn and fine cloths. Coarse, heavy wool, clean washed and carded into bats, without grease, makes excellent mattresses; it likewise makes respectable carpets.

WASHING WOOL.

This is generally done up summarily and in too much haste, for good work. We have seen the wool washed in a clean running stream, on the sheep's back, indifferently. We have seen baskets lightly filled, dipped into running water until the wool was tolerably clean. But we think it best to have it beside an abundant supply of water and wash what we wish to use white or color finely, in hot soap-suds, until perfectly clean. That which we intend to color black or with walnut dyes, we wash in cold water until free from dirt, leaving the natural grease in the fleece, because the wool seems in that state to have a greater affinity for those colors than when clean. Merino, or other wool that is very

tenacious of the gum that is natural to it, can be easily washed free of it after soaking a few days in cow urine.

PICKING WOOL.

The amount of this labor that can be done in a day, depends on the condition of the wool and the perfection of the machinery through which it is to be passed. The wool of sheep kept in clean pastures and to be managed in a factory furnished with a picker, requires but nominal picking. Sticks, burrs or hard substances only need be removed. But ill-kept sheep and old-time machinery, throw a labor upon the picker all tedious and painful, as the wool must be pulled so open that every particle of foreign substance must be removed. Such wool will lose full half its weight in washing and picking. A steady hand can pick from five to fifteen pounds a day, according to quality.

CARDING.

The wool should be sent to the factory in strong sheets. Allow one pound of grease to twelve pounds of wool. If your rolls are to be mixed, put up the colors in the same sheet in the proportion you wish them used. For solid cloths it is best to color the wool, as a quantity of skein yarn can hardly ever be so uniformly colored as not to show different shades in the web. Mixed rolls should be passed through the cards twice to insure a uniform color.

SPINNING.

This should be done in a warm place, free from currents of air. The rolls should be kept warm by the sun and fire. The wheels should be first rate; the axle not much above the level of the elbow, and ready to turn at the slightest touch. Each spinner should be furnished with a spinning stick and a supply of well twisted cord for wheel bands. Every two or three spinners should have a reel, that they need not wait on each other. The practice of spinning brooches on papers or corn husks is not good. The brooches are too liable to tangle and require much time to reel them. Let each wheel spindle have a circular piece of stiff leather passed over it to the head of the wheel, the hooch can then be formed against this on the naked spindle, and when large enough, the reel being placed before the spindle, the yarn can be reeled off very easily and rapidly. Every cut of reeled yarn should be tied separately, and when you have as many as you wish in your hank or skein, a stout cord should be tied around the hank in three or four places—these are called wash-bands, and prevent the yarn from tangling. The amount of spinning a person can do in a day depends on her natural activity. We have never required of others what we could not do ourself; accordingly we have usually obtained one cut of good linsey or carpet yarn for every hour of uninterrupted labor. All yarn should be well washed from grease or coloring matter before it is woven.

WEAVING.

Not much instruction in this business can be conveyed in writing; it is far more profitable than spinning. If you are going for the first time into the weaving business, get the most improved fixtures. It is not worth while to worry over an old-time heavy machine, while an improved one can be had that with half the labor will accomplish double the work. Your best plan is to get a competent person to come and learn you.

WARP

For woollen cloths is usually of cotton yarn. Each hank should have several wash-bands tied around it. If colored it should be washed clean; if to be used white, it must be well boiled in soap-suds. All warp should be stiffened by dipping into a thin corn gruel; this is called sizing, and is, together with spooling, generally done by the weaver, if you put out your work.

Cottons are numbered. No. 500 is the usual warp for coarse jeans or linsey, the yarn for which is drawn eight cuts to the pound. One

doz. will warp two and a half yards. No. 7 is the warp for cloth of ten cuts to the pound, and the fineness of the warp and filling are thus relatively increased. For carpets, there is an excellent warp made in the factories, but good can be prepared at home by doubling and twisting coarse cotton, flax or hemp thread together. Coarse jeans is sometimes woven on white warp, but looks better on colored, (one lb. extract of logwood and one lb. of alum will color the warp of 100 yards.) The colors for linseys should be all fast, both for the warp and filling.

Flannels are of woollen, both warp and filling. The warp is best spun with a cross band. It can be spun like other cloth from 8 to 20 cuts to the pound, according to the quality of the cloth desired. It makes the best cloth for fulling, and if desired for that purpose should be at least a quarter of a yard wider than the cloth is desired to be when full; a quarter should likewise be allowed to each yard in length for shrinkage. The fulling is done at mills for the purpose. This cloth makes excellent overcoats.

Blankets are best made all of wool. They are sometimes woven on cotton chain and as plain flannel, but usually on woollen warp and in what is called blanket twill. This yarn should be very coarse and soft, especially the filling. The yarn should be bleached before weaving. A broad stripe of precisely the same width can be woven in at equal intervals and so form a border for the two ends of the blanket. If two widths are desired, they should be joined with a flat seam. Then being washed perfectly white, the blanket should be stretched tight over a clean table and combed with a clean card until it looks like a light bat of snowy wool. This service being rendered both sides and a ribbon binding put on as a finish, you have an article ready for the fair or the best guest chamber.

For Venetian or striped carpet, the yarn should be spun 10 to 12 cuts to the pound, allowing at least one pound to the yard, doubled three times, twisted and dyed in good colors. The yarn is the warp and four threads in the reed will hide the filling (which is usually of dark cotton carpet warp entirely.) It is woven like girting, and makes a serviceable and handsome carpet, especially for halls and stairs. We have seen one used daily for thirty years.—*Expensive.*

Chene Carpet—The warp may be plain, dark or striped, of cotton carpet chain. The filling is of wool, spun about eight cuts to the pound. The yarn should be divided into three parts and dyed of any three colors, then twisted together and woven as plain linsey. A careful weaver may stripe this in the filling, so as to have as almost an unbroken stripe as in the Venetian. Any way, this is a pretty, serviceable and cheap carpet, costing very little trouble.

A good carpet may be made of wool flyings in this same fashion.

Stocking yarn should be made of the best wool, spun with a crossed band, if to be knit single, eight cuts to the pound for coarse hose, 12 for serviceable wear for active farmers and school boys, 16 to 24 for ladies' and little children's choice hosiery. Mixed and black hose look nicest for family use. Children's gay colors may be spotted by tying around the skeins (before dyeing) a cord, very tightly, or wrapping several thicknesses of corn husks around the skeins while wet and binding them on very closely.

Bleaching yarn is done by soaking it several days in some whey from buttermilk, then smoking it over a fire of embers strewn over with brimstone. The yarn must be dampened and carried through this process several times.

COLORING.

A clear day, good dyestuffs, large kettles of copper or brass, and an ample stock of patience, will generally in this branch of manufacturing insure success.

Black.—Dissolve 2 lbs. of copperas in as

much water as will cover well 20 lbs. of wool, while scalding it an hour. Then dissolve 2 lbs. of Extract of Logwood in the same quantity of water used for the copperas. Drain the wool dry, put it into a dye kettle and boil it for an hour. If not colored to suit, add more extract and boil again. A piece of blue stone large as an almond will give the wool a fine blueish cast. A good purple may be dyed as above, substituting alum for copperas, and omitting the blue stone.

Brown.—Cold brown dye is done by putting alternate layers of wool and green walnut bark in a close vessel. Fill the vessel with rain water. Every few days the wool must be taken out and dried and replaced occasionally with fresh bark, using the same water. This is tedious and troublesome, and we think the end easier gained by boiling the bark or green walnut hulls, straining the liquid, and then boiling the wool in it until the color suits.

Yellow.—For pale yellow, make a strong dye by boiling green peach leaves in water. For light yellow, boil tanners' oak bark. For orange, use hickory bark and one pound of Nicaragua chips for the ooze. Then having scalded the yarn for an hour in water in which one pound of alum was allowed for three pounds of yarn, drop it into your dye and boil until the color suits you.

Green.—Alum your yarn as for yellow. Prepare a strong ooze of yellow oak bark, then having ten days before mixed oil vitriol 1 lb to 1.2 oz. of best indigo, pour of it into your dye until the color pleases you. Boil the yarn in it an hour or more, airing it at intervals.

For a green that will wash, dye your yarn yellow; wash clean and dip into a good fast colored blue dye.

Blue.—For 1 ounce of indigo allow 1 lb. of madder. Mix the madder to a soft mass with water which has stood on wheat bran some hours. Set your dye tub in a warm corner, put in it a bucket of weak ley. Have your indigo in a bag and rub it out into the ley until deep as you wish your color. Mix your madder sponge in the dye, then procure from some person who has dye ready for use, at least one quart of their dye (this is called yeast) and stir it in your dye. When your dye assumes a greenish cast and looks frothy it is ready for use. Dip your cotton or yarn without any preparation but washing in soapuds.

Red.—The day before coloring, in a tub one third filled with bran, pour on water enough to fill the vessel. Likewise mix with bran water one pound of madder for every three pounds of wool intended for coloring. Alum your yarn as directed for yellow; then having strained your bran water into your kettle, mix the madder sponge in it and boil your yarn in it from one to three hours, according to the color desired. When dry, dip the yarn in good ley—dry and wash clean. One pound of Nicaragua ground and soaked in soft water two or three days, will dye yarn previously alumed, crimson, by boiling in it three hours; common red, two hours; lilac one hour; crimson and lilac to be dipped in ley—weak for the lilac—one pound chips to three of wool.

In no dye crowd your yarn in the kettle. Stir all colors continually.

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WILL CURE
DEBILITY! DEBILITY!
resulting from any cause whatever.
PROSTRATION OF THE SYSTEM,
INDUCED BY

Severe Hardships,
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DISEASES OF CAMP LIFE
Soldiers, Citizens, Male or Female, Adult or Youth,

Will find in this Bitters a pure Tonic, not dependent on bad liquors for their almost miraculous effects.

DYSPEPSIA,
AND DISEASES RESULTING FROM DISORDERS OF THE LIVER AND DIGESTIVE ORGANS.

ARE CURED BY
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This Bitters has performed more Cures, gives better satisfaction, has more testimony, has more respectable people to vouch for it, than any other article in the market. We defy any one to contradict this assertion, and

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Hooiland's German Bitters,
Will cure every case of

Chronic or Nervous Debility,
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Observe the following symptoms resulting from disorders of the digestive organs:

Constipation, Inward Piles, Fullness of Blood to the Head, Acidity of the Stomach, Nausea, Heartburn, Disgust for Food, Fullness or Weight in the Stomach, Sour Eructations, Sinking or Fluttering at the Pit of the Stomach, Swimming of the Head, Hurried and Difficult Breathing, Fluttering at the Heart, Choking or Suffocating Sensations When in a Lying Posture, Dimness of Vision, Dots or Webs before the Sight, Fever and Dull Pain in the Head, Deficiency of Perspiration, Yellowness of the Skin and Eyes, Pain in the Side, Back, Chest, Limbs, &c., Sudden Flushes of Heat, Burning in the Flesh, Constant Imaginings of Evil, and Great Depression of Spirits.

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From the Rev. E. D. Fendall, Assistant Editor Christian Chronicle, Philada.

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Yours truly, E. D. FENDALL.
From Rev. D. Merrige, Pastor of the Passyunk Baptist Church, Phila.

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Norton's Virginia, Concord, Heribmont, Delaware, Cunningham, Cassady, Clinton, Hartford Prolific and Catawba, by the case, containing 1 dozen bottles each. Norton's Virginia, Concord and Catawba, also by the keg, barrel or cask.

As these wines were all grown on my own vineyards, and carefully managed, I can warrant them to be of superior quality and to give general satisfaction.

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Norton's Virginia, first quality,	\$18.00
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Catawba, second quality, very fair,	\$ 8.50

In casks, in quantities under forty gallons—

Norton's Virginia, first quality,	\$1.50 ³ / ₄ gallon.
Concord, first quality,	3.00 "
Concord, second quality,	2.50 "
Catawba, first quality,	2.50 "
Catawba, second quality,	2.00 "
Heribmont, first quality,	4.50 "

In quantities over forty gallons—

Norton's Virginia, first quality,	4.00 "
Concord, first quality,	2.50 "
Concord, second quality,	2.00 "
Catawba, first quality,	2.00 "
Catawba, second quality,	1.75 "

As these wines were all grown on my own vineyards and carefully managed, I can warrant them to be of superior quality, and have no doubt but they will give general satisfaction.

GEO. HUSMANN.

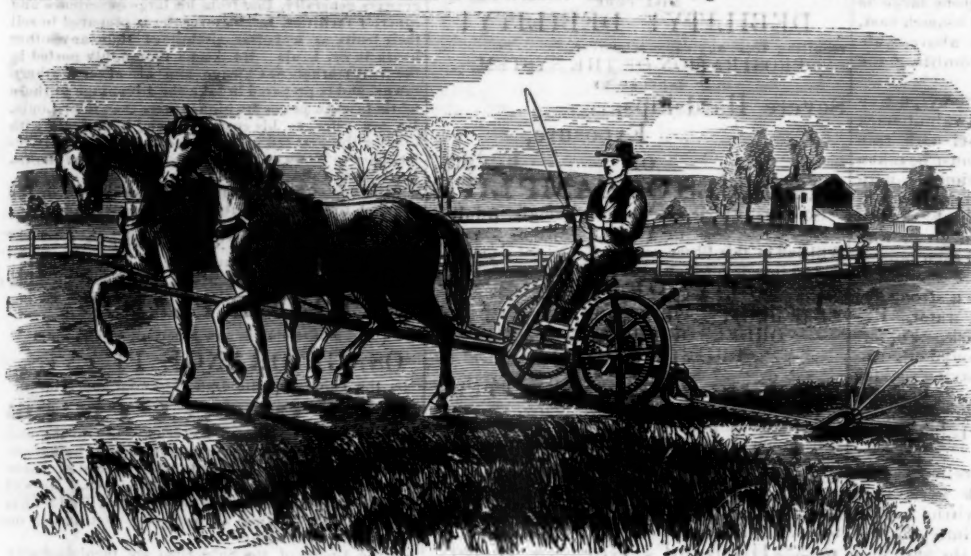
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Strap Leaf White Dutch, Fall and Winter.
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July 1—2t

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July 1-2t

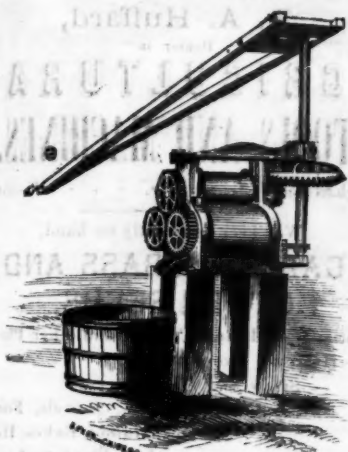
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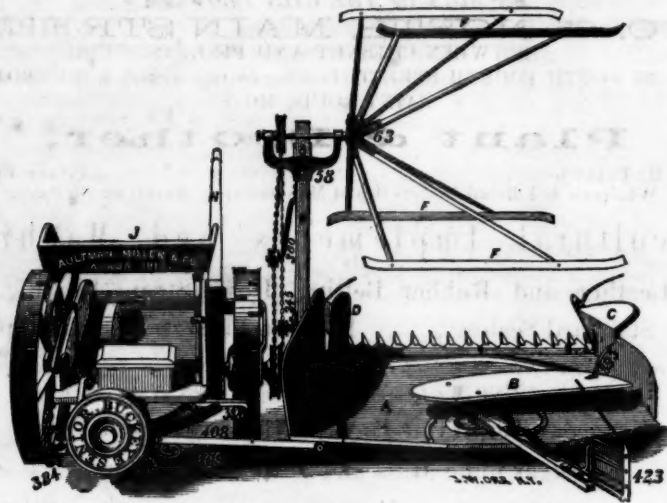
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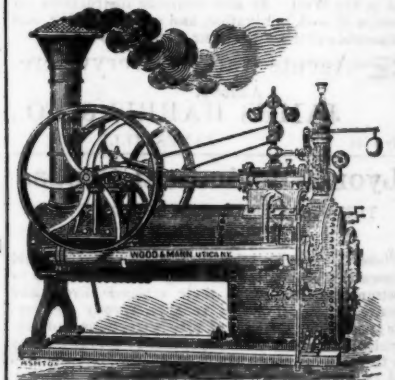
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